Doklady Akad. Nauk 105, 397-400 (1955) CARD 2/2 PG - 148

$$y^{(n-1)} = v, \quad y^{(n-2)} = z, \quad y^{(i)} = y_i \qquad (i=0,1,2,\ldots,n-3)$$

(this equation has been considered by the author in an earlier paper (Mat. Sbornik, n. Ser. 31, 645 (1952)). The author asserts that under certain (very numerous) assumptions the solutions of (1) behave just so as those of (2), i.e. for $\mu \to 0$, v is unbounded, z and u_i are oscillating, the y_e tend to any boundary functions (z differs from the u_i by the fact that $Q = 0$ is assumed to be solvable with respect to z). No proofs are given.

INSTITUTION: Lomonossov University Moscow.

SOV/124-57-5-5194

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 5, p 14 (USSR)

AUTHOR: Volosov, V. M.

TITLE: On the Asymptotic Behavior of the Solutions of Some Differential Equations Pertaining to Nonlinear Oscillations (Ob asimptoticheskom povedenii resheniy nekotorykh differentsial'nykh uravneniy nelineynykh kolebaniy)

PERIODICAL: Tr. 3-go Vses. matem. s"yezda. Vol I. Moscow, AN SSSR, 1956, pp 219-220

ABSTRACT: Bibliography entry

Card 1/1

VOLOSOV, V.M.

Differential equations of motion, containing a slowness parameter.
Dokl.AN SSSR 106 no.1:7-10 Ja '56. (MIRA 9:4)

1.Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova. Predstavleno akademikom I.G.Petrovskim.
(Differential equations) (Vibration)

20-114-6-3/54

AUTHOR: Volosov, V. M.

TITLE: Solutions of Second Order Non-Linear Differential Equations With Slowly Varying Coefficients (O resheniyakh nelineynykh differentsial'nykh uravneniy vtorogo poryadka s medlenno izmenyayushchimisya koeffitsiyentami)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol. 114, Nr 6, pp. 1149-1152 (USSR)

ABSTRACT: The posing of the problem: The author here examines an equation of the type

$$\frac{d}{dt}\left[m(\varepsilon t)\,\dot{x}\right] + \varepsilon f(\varepsilon t, x, \dot{x}) + Q(\varepsilon t, x) = 0$$

where the small parameter ε characterizes the slowness of the variation of the functions m, f, Q with increasing time. In the present paper the amplitude and the period are calculated with an accuracy of up to and including quantities of the order of magnitude ε for the interval $t \sim 1/\varepsilon$. The terms of a magnitude ε^3 and more can be left out. After some steps of calculation the following equation, which is discussed in this paper, is obtained:

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2: 4-6-3/54

Solutions of Second Order Non-Linear Differential Equations With Slowly Varying Coefficients

$$\frac{d}{dt}\left[m(\varepsilon t)\,\dot{x}\right] + q(\varepsilon t,x) + \varepsilon\varphi_1(\varepsilon t,x,\dot{x}) + \varepsilon\varphi^2{}_2(\varepsilon t,x,\dot{x}) + \varepsilon^3\varphi_3(\varepsilon t,x,\dot{x}) + \dots = 0.$$

If the condition sign Q = sign x is satisfied and if several other limitations are taken into account, the solution of the last mentioned equation (provided that the initial conditions $x(0) = x_o, \dot{x}(0) = \dot{x}_o$, $x_o^2 + \dot{x}_o^2 \neq 0$ are satisfied), oscillates, when ε are sufficiently small, with a slowly varying amplitude and period within the interval $t \sim 1/\varepsilon$. On that occasion the positive maxima and the negative minima alternate, and between, the solution monotonously varies. Formulae are derived for the amplitude and for the period which describe these quantities with an accuracy of up to and including ε in the interval $t \sim 1/\varepsilon$. First the equation of zeroth approximation for the amplitude and for the period are given and physically interpreted. An equation is then given for the variation of the action integral in time. Thereafter the higher approximations are discussed. The equations with higher approximations are linear, too. Finally, the conditions of applicability of the

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20-114-6-3/54

Solutions of Second Order Non-Linear Differential Equations With Slowly Varying Coefficients

equations of zeroth and first order are discussed.

ASSOCIATION: Moscow State University imeni M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova)

PRESENTED: January 17, 1957, by I. G. Petrovskiy, Member of the Academy

SUBMITTED: January 15, 1957

Card 3/3

Volosov, V.M.

AUTHOR: Volosov, V. M. 20-1-4/54

TITLE: Periodical Solutions of a Nonlinear Equation for Auto-oscillations (O periodicheskikh resheniyakh nelineynogo uravneniya avtokolebaniy).

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol. 115, Nr 1, pp. 20-22 USSR)

ABSTRACT: The present paper studies the periodic solutions of the non-linear equations of autooscillations of the type $\ddot{x}+Q = \mathcal{E}f(x,\dot{x},\mathcal{E})$ where $\mathcal{E}$ is a small parameter. Q = sign x and $\int_0^{\pm\infty} Q(x)dx = \infty$ applies. Then the periodic equation $x_o + Q(x_o) = 0$ has only periodic solutions. The perturbed equation $\ddot{x} + Q(x) = \mathcal{E}f(x,\dot{x},\mathcal{E})$ will not have periodic solutions under all but only under certain special initial conditions. The present paper gives formulae for the calculation of the chief characteristics of the periodic solutions (amplitude and period) of the perturbed equation. In this connection these values shall be immediately expressed by Q and f. Then aperiodic solutions can in the case of $t\to\infty$ without restriction approach these periodic solutions or withdraw from them. A criterion for the stability of the periodic solution of this

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Periodical Solutions of a Nonlinear Equation for Autooscillations. 20-1-4/54

perturbed equation is given, and in this criterion only the functions Q, f occur.
Q and f for all values of x and $\dot{x}$ in the case of all sufficiently small $\mathcal{E}$ are regular with regard to $x, \dot{x}, \mathcal{E}$. The author seeks a periodic solution of the perturbed equation which in a certain environment of $\mathcal{E} = 0$ analytically depends on $\mathcal{E}$. The periodic solution of the perturbed equation (which in the case of $\mathcal{E} = 0$ does not change over to the trivial solution x = 0 of the unperturbed equation) oscillates in the case of a sufficiently small $\mathcal{E}$ about the t-axis and alternatingly has positive maxima and negative minima between whom lies one zero respectively. Other extrema are absent and the curve $x(t,\mathcal{E})$ monotonously varies between the maxima and minima. There is no figure.

ASSOCIATION: Moscow State University imeni M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova)

PRESENTED: January 17, 1957, by I. G. Petrovskiy, Academician.

SUBMITTED: January 15, 1957

AVAILABLE: Library of Congress

Card 2/2

20-6-1/47

AUTHOR: VOLOSOV, V.M.

TITLE: On Nonlinear Oscillations With One Degree of Freedom for a System With Slowly Variable Parameters (O nelineynykh kolebaniyakh s odnoy stepen'yu svobody sistemy s medlenno izmenyayushchimisya parametrami)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol. 117, Nr 6, pp 927-930 (USSR)

ABSTRACT: The present paper is a continuation of the author's earlier papers [Ref.3,4]. He considers the oscillating solutions of the equation

$$(1) \qquad \ddot{x} + Q(\varepsilon t, x) + \varepsilon f(\varepsilon, \varepsilon t, x, \dot{x}) = 0 \qquad |\varepsilon| \ll 1.$$

In [Ref.3,4] the author has determined approximate expressions for the period and amplitude of the solution, where the period denoted the time between two consecutive extrema. Now he gives an asymptotic formula which gives the solution $x(t, \varepsilon)$ with the exactness $\sim \varepsilon$. The results are compared with the results of Mitropol'skiy [Ref.1] who took the mean for the investigation of (1). Finally some corrections for [Ref.4] are given. 4 Soviet references are quoted.

Card 1/2

20-6-1/47

On Nonlinear Oscillations With One Degree of Freedom for a System With Slowly Variable Parameters

ASSOCIATION: Moscow State University im.M.V.Lomonosov (Moskovskiy gosudarstvennyy universitet im.M.V.Lomonosova)

PRESENTED: By N.N.Bogolyubov, Academician, 4 June 1957

SUBMITTED: 2 June 1957

AVAILABLE: Library of Congress

Card 2/2

AUTHOR: Volosov, V.M. SOV/20-123-4-2/53

TITLE: On the Solutions of Some Disturbed Systems in the Neighborhood of Periodic Motions (O resheniyakh nekotorykh vozmushchennykh sistem v okrestnosti periodicheskikh dvizheniy)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 123, Nr 4, pp 587-590 (USSR)

ABSTRACT: In a domain let the undisturbed system $\dot{\vec{x}} = \vec{F}(x_1, x_2, \ldots, x_n)$ have only periodic solutions $\vec{x} = \vec{x}_0(C, \varphi)$; here $\vec{x}$ and $\vec{F}$ are n-dimensional vectors and $\vec{C}$ is an (n-1)-dimensional vector. The author seeks approximate solutions of the disturbed system $\dot{\vec{x}} = \vec{F}(x_1, \ldots, x_n) + \varepsilon\vec{f}(x_1, \ldots, x_n, \varepsilon)$, where ε is a small parameter. The construction of the approximate solutions is made by an asymptotic expansion of the unknown functions $\vec{C}(t, \varepsilon)$ and $\varphi(t, \varepsilon)$, i.e. by variation of the constants $\vec{C}$ and φ. Only equations of first order for the determination of the zero approximation of $\vec{C}$ and φ are given explicitly. According to the author, the higher approximations lead to very extensive expressions. As simpler special cases the author considers periodic solutions of the disturbed system, canonical systems with a Hamiltonian function, oscillation equations

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On the Solutions of Some Disturbed Systems in the Neighborhood of Periodic Motions SOV/20-123-4-2/53

with slowly variable parameters, etc. Some results overlap with results of Pontryagin [Ref 9], Mitropol'skiy [Ref 10] and Lykova [Ref 11].
There are 11 references, 10 of which are Soviet, and 1 German.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova (Moscow State University imeni M.V.Lomonosov)

PRESENTED: July 3, 1958, by I.G.Petrovskiy, Academician

SUBMITTED: July 2, 1958

Card 2/2

SOV/20-121-1-5/55

AUTHOR: Volosov, V.M.

TITLE: Oscillation Equations With Slowly Variable Parameters (Uravneniya kolebaniy s medlenno izmenyayushchimisya parametrami)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 121, Nr 1, pp 22-25 (USSR)

ABSTRACT: The author considers the system

(1) $\frac{d}{dt}\left[m(\vec{\mu})\dot{x}\right] + Q(\vec{\mu},x) = \varepsilon f(x,\dot{x},\vec{\mu}), \quad \dot{\vec{\mu}} = \varepsilon\vec{\varphi}(x,\dot{x},\vec{\mu}),$

where ε is a small parameter and $\vec{\mu} = \{\mu_1, \mu_2, \ldots, \mu_n\}$, $\vec{\varphi} = \{\varphi_1, \ldots, \varphi_n\}$. The first equation is the oscillation of the variable mass m, the second equation describes the variation of the parameters μ_i. Under the assumptions 1) sign Q = sign x, 2) $m(\vec{\mu})\ddot{x} + Q(\vec{\mu},x) = 0$ has only periodic solutions in a certain domain of initial values and of the μ, the solution $x(t,\varepsilon)$ of (1) for sufficiently small ε oscillates around the equilibrium position x = 0, where the maxima and minima relieve one another. The author's principal result consists in the statement that there exist functions $F_1(\varepsilon t) < 0$, $F_2(\varepsilon t) < 0$ and $\vec{\mu}(\varepsilon t)$ which on the interval $t \sim 1/\varepsilon$ determine the maxima and the minima of $x(\varepsilon,t)$ and the variation of $\vec{\mu}$ with the exactness ε. Here

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$$(2) \qquad \int_{F_2}^{F_1} Q(\vec{\mu}, x)\, dx = 0.$$

For the determination of the $F_1, F_2, \mu_1, \ldots, \mu_n$ besides $(n+1)$ very complicated equations are given. For the oscillation period it results

$$T = 2m^{1/2} \sum_{k=1}^{2} (-1)^{k+1} \int_0^{F_k} dx \left(2 \int_x^{F_k} Q(\vec{\mu}, z)\, dz\right)^{-1/2}.$$

The amplitude of $\dot{x}$ is $\pm \sqrt{2E\, m^{-1}}$, where

$$E \equiv \int_0^{F_1} Q(\vec{\mu}, x)\, dx = \int_0^{F_2} Q(\vec{\mu}, x)\, dx.$$

The formula for the amplitude of x is very long.

Oscillation Equations With Slowly Variable Parameters SOV/20-121-1-5/

The obtained results are interpreted physically. Two examples are given.
There are 8 references, 7 of which are Soviet, and 1 French.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova (Moscow State University imeni M.V.Lomonosov)

PRESENTED: February 21, 1958, by N.N.Bogolyubov, Academician

SUBMITTED: February 19, 1958

1. Oscillations--Mathematical analysis

Card 3/3

SOV/20-121-6-1/45

AUTHOR: Volosov, V.M.

TITLE: The Asymptotic of the Integrals of Some Disturbed Systems (Asimptotika integralov nekotorykh vozmushchennykh sistem)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 121, Nr 6, pp 959-962 (USSR)

ABSTRACT: The author considers the undisturbed system

(1) $\dot{x}_0 = M(x_0, y_0, \vec{\mu}_0)$, $\dot{y}_0 = N(x_0, y_0, \vec{\mu}_0)$

and the disturbed system

(2) $\dot{x} = M(x, y, \vec{\mu}) + \varepsilon f^{(y)}(x, y, \vec{\mu})$, $\dot{y} = N(x, y, \vec{\mu}) - \varepsilon f^{(x)}(x, y, \vec{\mu})$

$$\dot{\vec{\mu}} = \epsilon \vec{\varphi}(x, y, \vec{\mu}) ,$$

where the vectors $\vec{\mu}_0$ and $\vec{\mu}$ represent the system parameters. Under the assumption that (1) has periodic solutions and that it admits a bounded, sufficiently smooth integrating factor, the author reduces system (2) to a system with a quickly rotating phase (see Bogolyubov [Ref 2]). The first approximation of the solutions of this system is reached by averaging according to Bogolyubov. This approximation describes the behavior of the new variable on the interval $t \sim 1/\varepsilon$ with the exactness $\sim \varepsilon$. The

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present paper generalizes the results of numerous earlier publications of the author [Ref.8,9].
There are 9 references, 8 of which are Soviet, and 1 German.

ASSOCIATION: Moskovskiy gosudarstvenny universitet imeni M.V.Lomonosova (Moscow State University imeni M.V.Lomonosov)

PRESENTED: April 22, 1958, by N.N.Bogolyubov, Academician

SUBMITTED: April 18, 1958

Volosov, V.M.

81853

S/020/60/133/02/03/068
C111/C222

16.3400

AUTHOR: Volosov, V.M.

TITLE: Averaging of Some Perturbed Motions

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 133, No. 2, pp. 261-264

TEXT: Given the undisturbed system

(1) $\dot{x} = F(x,y)$, $\dot{y} = \phi(x,y)$,

where x, F and y, ϕ are n- and m-dimensional vector functions, respectively. Let F, ϕ be periodic in $y_1, y_2, \ldots, y_m$ with the periods $T_1, T_2, \ldots, T_m \neq 0$. Let the solution of (1) depend on n + m constants, where the x_i in t have the period T_o depending on n + m - 1 constants, and the y_j have increases in the time $\Delta t = T_o$ which are equal to the T_j $(j = 1,2,\ldots,m)$. Then the solution of (1) has the form

(2) $x = x_o(c,\psi)$, $y = \frac{T\psi}{2\pi} + y_o(c,\psi)$,

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Averaging of Some Perturbed Motions

where c are the constants, ψ is the phase and $T = \{T_1, T_2, \dots, T_m\}$; x_0 and y_0 are 2π - periodic in ψ. Beside of (1) the author considers the perturbed system

$$(4) \quad \dot{x} = F(x,y) + \varepsilon f(x,y,\varepsilon) \, , \quad \dot{y} = \phi(x,y) + \varepsilon \varphi(x,y,\varepsilon) \, ,$$

where f and φ in the y_j are periodic with the periods T_j. For small ε the author investigates the solutions of (4) in the neighborhood of the solutions of (1) on large intervals of time $t \sim 1/\varepsilon$. By a variation of the constants $c = \{c_1, c_2, \dots c_{n+m-1}\}$ and the phase ψ the author aspires to a representation of the solution of (4) in the form (2). For the determination of the corresponding functions $c(t,\varepsilon)$, $\psi(t,\varepsilon)$ the author obtains equations from which by an asymptotic averaging (Ref. 1) arbitrarily high approximations for c, ψ and therewith for the solution of (4) can be obtained.
The same problem is treated for equations with slowly variable parameters and for systems similar to the canonical systems.

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Averaging of Some Perturbed Motions

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The author mentions D.V. Anosov. There are 8 references : 7 Soviet and 1 German.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova (Moscow State University imeni M.V. Lomonosov)

PRESENTED: March 14, 1960, by I.G. Petrovskiy, Academician

SUBMITTED: March 10, 1960

Card 3/3

VOLOSOV, V. M., TIKHONOV, A. N. and VASILYEVA, A. B.

"Differential equations containing a small parameter."

Paper presented at the Intl. Symposium on Nonlinear Vibrations, Kiev, USSR, 9-19 Sep 61

Moscow State University, Moscow

VOLOSOV, V. M.

Doc Phys-Math Sci - (diss) "Averaging method and several problems in the theory of non-linear vibrations." Kiev, 1961. 8 pp; (Joint Academic Council of the Institutes of Physics, Mathematics, and Metallophysics of the Academy of Sciences Ukrainian SSR); 170 copies; price not given; bibliography on pp 7-8 (24 entries); (KL, 6-61 sup, 191)

20312

S/020/61/137/001/002/021
C111/C222

16.6500
AUTHOR: Volosov, V.M.

TITLE: Averaging method

PERIODICAL: Akademii nauk SSSR. Doklady, v. 137, no. 1, 1961, 21 - 24

TEXT: Given the system

$$\dot{x} = \varepsilon X(x,y,t,\varepsilon), \quad \dot{y} = Y(x,y,t,\varepsilon), \tag{1}$$

where x,X and y,Y are n and m-dimensional vectors, respectively, $\varepsilon > 0$ is a small parameter. Let the general solution of the degenerated system ($\varepsilon = 0$)

$$\dot{y} = Y(x,y,t,0) \equiv Y_0(x,y,t), \quad x = \text{const} \tag{2}$$

be known and let

$$y = \varphi(x,y_0,t_0,t) \quad \left(\varphi(x,y_0,t_0,t_0) \equiv y_0, \quad \text{rank}\left\| \frac{\partial \varphi}{\partial y_0}, \frac{\partial \varphi}{\partial t_0} \right\| = m\right) \tag{3}$$

Let the right sides of (1) and other appearing functions have mean values
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APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860720003-4"

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S/020/61/137/001/002/021
C111/C222

Averaging method

along every solution of (2) which do not depend on y_0 and t_0. It is shown that this assumption does not weaken the generality. Let

$$\dot{\bar{x}} = \varepsilon \bar{X}_1(\bar{x}) \equiv \lim_{T\to\infty} \frac{1}{T_0} \int_{t_0}^{t_0+T} X[\bar{x}, \varphi(\bar{x}, y_0, t_0, t), t, 0]\, dt \qquad (4)$$

be the averaged system.

Problem : Compare the solutions of (1) and (4) on a large interval of $t \sim 1/\varepsilon$ and construct averaged systems of higher order

$$\begin{aligned} \dot{\bar{x}} &= \varepsilon \bar{X}_1(x) + \varepsilon^2 A_2(\bar{x}) + \varepsilon^3 \ldots, \\ \dot{\bar{y}} &= Y_0(\bar{x}, \bar{y}, t) + \varepsilon B_1(\bar{x}) + \varepsilon^2 B_2(x) + \varepsilon^3 \ldots \quad . \end{aligned} \qquad (5)$$

For the solution, (1) is written in the form

$$\begin{aligned} \dot{x} &= \varepsilon X_1(x, y, t) + \varepsilon^2 X_2(x, y, t) + \varepsilon^3 \ldots, \\ \dot{y} &= Y_0(x, y, t) + \varepsilon Y_1(x, y, t) + \varepsilon^2 Y_2(x, y, t) + \varepsilon^3 \ldots \end{aligned} \qquad (6)$$

The author seeks a transformation

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$$x = \bar{x} + \varepsilon u_1(\bar{x},\bar{y},t) + \varepsilon^2 u_2(\bar{x},\bar{y},t) + \varepsilon^3 \ldots,$$
$$y = \bar{y} + \varepsilon v_1(\bar{x},\bar{y},t) + \varepsilon^2 v_2(\bar{x},\bar{y},t) + \varepsilon^3 \ldots \qquad (7)$$

for (6) which leads to (5). By differentiating (7), using (5), and a comparison of coefficients one obtains an infinite system for the terms of (5), (7), where the functions A_2, A_3, ..., B_1, B_2, ... in general can be chosen arbitrarily. For u_1, v_1, u_2, v_2, ... one obtains equations of the type

$$\frac{\partial u_1}{\partial t} + (Y_0 \frac{\partial}{\partial y}) u_1 = X_1 - \bar{X}_1 \equiv S \qquad (8)$$

$$\frac{\partial v_1}{\partial t} + (Y_0 \frac{\partial}{\partial y}) v_1 - (v_1 \frac{\partial}{\partial y}) Y_0 = R \qquad (9)$$

which can be solved successively since the solutions of the characteristic systems are known. Thus the formal developments (5), (7) can be determined arbitrarily far.
The foundation of the method is carried out under ten assumptions the

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C111/C222

Averaging method

control of which is partially difficult. The possibility of application of the method to more general systems, systems with slowly variable parameters, and systems with a quickly rotating phase (special case) is considered briefly.
There are 6 Soviet-bloc references.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova (Moscow State University imeni M.V. Lomonosov)

PRESENTED: October 14, 1960, by I.G. Petrovskiy, Academician

SUBMITTED: October 13, 1960

Card 4/4

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860720003-4"

VOLOSOV, V.M.

Higher approximations in averaging. Dokl.AN SSSR 137 no.5:1022-1025 Ap '61. (MIRA 14:4)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova. Predstavleno akademikom I.G.Petrovskim.
(Mathematical statistics) (Approximate computation)

VOLOSOV, V.M.

The method of averaging in systems of ordinary differential equations. Usp.mat.nauk 17 no.6:3-126 N-D '62. (MIRA 16:1)
(Differential equations)

VOLOSOV, V.M.

International symposium on nonlinear vibrations held in Kiev; summaries of reports. Usp.mat.nauk 17 no.2:215-265 Mr-Ap '62. (MIRA 15:12)

(Vibration--Congresses)

S/020/62/145/005/001/020
B112/B104

AUTHOR: Volosov, V. M.

TITLE: Averaging on an unbounded interval

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 145, no. 5, 1962, 965-966

TEXT: Two previous papers by the author (DAN, 137, No. 1, 21 (1961); No. 5, 1022 (1961)), contain certain theorems concerning an asymptotic method for the system $\dot{x} = \varepsilon X(x,y,t,\varepsilon)$, $\dot{y} = Y(x,y,t,\varepsilon)$ ($x = \{x_1, \ldots, x_n\}$, $y = \{y_1, \ldots, y_m\}$, $X = \{X_1, \ldots, X_n\}$, $Y = \{Y_1, \ldots, Y_m\}$, $\varepsilon > 0$), which is connected with an averaging along the integral curves of the degenerated system $x = \text{const}$, $\dot{y} = Y(x,y,t,0)$. Those theorems refer to a large bounded time interval and cannot be applied immediately to an unbounded interval. That is done in the present paper by requiring the asymptotic stability of certain solutions of the degenerated system and of the system averaged in first approximation.

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Averaging on an unbounded ...

S/020/62/145/005/001/020
B112/B104

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

PRESENTED: March 12, 1962, by I. G. Petrovskiy, Academician

SUBMITTED: March 7, 1962

Card 2/2

16.6500

S/020/62/145/004/001/024
B112/B102

AUTHOR: Volosov, V. M.

TITLE: Averaging in certain systems of differential equations

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 145, no. 4, 1962, 713 - 715

TEXT: For purposes of averaging, systems of the form $\dot{x} = \varepsilon X(x,y,t,\varepsilon)$, $\dot{y} = Y(x,y,t,\varepsilon)$ are reduced to the degenerate system $x = \text{const}$, $\dot{y} = Y(x,y,t,0)$. Unlike what has been done in previous papers (V. M. Volosov, DAN, 137, No. 1, 21 (1961); No. 5, 1022 (1961)), it is assumed that the average values of certain functions vary along the trajectories of the degenerate system. The two theorems derived contain estimates of the deviations of the exact solutions from the average solutions. 18

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

PRESENTED: March 12, 1962, by I. G. Petrovskiy, Academician

SUBMITTED: March 7, 1962

Card 1/1

VOLOSOV, V.M. (Moskva)

Some types of calculations in the theory of nonlinear oscillations connected with the method of concomitant variations. Zhur.vych.mat.i mat.fiz. 3 no.1:3-53 Ja-F '63.
(MIRA 16:2)

(Scillations) (Differential equations)

L 18874-63 EWT(1)/BDS AFFTC/ASD/IJP(C)

ACCESSION NR: AP3006584 S/0020/63/151/006/1260/1263

54
53

AUTHORS: Volosov, V. M.; Morgunov, B. I.

TITLE: Asymptotics of certain rotary motions [Presented by Academician I. G. Petrovskiy, 8 March 1963]

SOURCE: AN SSSR. Doklady, v. 151, no. 6, 1963, 1260-1263

TOPIC TAGS: motion, rotary motion, nonperturbed system, perturbed motion, freedom degree

ABSTRACT: The present work is a continuation of previous investigations by the author of systems with a single degree of freedom in which the solution of a non-perturbed system is described by an oscillating process. Amplitude curves, the period and other parameters were found for such systems in first or second approximation. The rotational processes of such systems are analyzed in this paper, by previously described methods, by finding in first approximation the slowly changing function E (ϵ,t) describing in first approximation the energy of the perturbed motion (where ϵ is a small parameter) and finding in the same approximation the slowly changing parameters in the given universe. Orig. art. has: 22 formulas.

Card 1/1 ASSN: Moscow State University

VOLOSOV, V.M.; MORGUNOV, B.I.

Calculation of steady-state resonance states of certain nonlinear oscillatory systems. Dokl. AN SSSR 153 no.3:559-561 N '63. (MIRA 17:1)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova. Predstavleno akademikom N.N. Bogolyubovym.

VOLOSOV, V.M.; MOISEYEV, N.N.; MORGUNOV, B.I.; CHERNOUS'KO, F.L. (Moscow)

"Asymptotic methods of non-linear mechanics associated with the process of averaging"

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 January - 5 February 1964

VOLOSOV, V. M. (Moscow)

"Asymptotische Methoden zur Berechnung von Rotationsbewegungen."

report submitted for 3rd Conf on Nonlinear Oscillations, E. Berlin, 25-30 May 64.

VOLOSOV, V. M.; MORGUNOV, B. I.

Steady-state resonance modes of certain oscillatory systems. Dokl. AN SSSR 156 no. 1:50-53 My '64. (MIRA 17:5)

1. Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova. Predstavleno akademikom N. N. Bogolyubovym.

VOLOSOV, V. M.

"Rotation and vibration of some perturbed nonlinear systems."

report submitted for Intl Symp on Forced Vibrations in Nonlinear Systems, Marseille, 7-12 Sep 64.

Moscow.

VOLOSOV, V.M.; MORGUNOV, B.I.

Calculation of stationary resonance vibrational modes of certain non-Hamiltonian systems. Vest. Mosk.un. Ser. 3: Fiz., astron. 20 no.4:86-89 Jl-Ag '65. (MIRA 18:12)

1. Kafedra matematiki Moskovskogo gosudarstvennogo universiteta. Submitted October 20, 1964.

VOLOSOV, V.M.; MEDVEDEV, G.N.; MORGUNOV, B.I.

Use of the method of averaging in solving certain systems of differential equations with delayed argument. Vest. Mosk. un. Ser. 3: Fiz., astron. 20 no.6:89-91 N-D '65. (MIRA 19:1)

1. Kafedra matematiki Moskovskogo universiteta. Submitted June 28, 1965.

L 50525-65 EWT(d) IJP(c)
ACCESSION NR: AP5011522 UR/0020/65/161/005/1048/1050

17
18

AUTHORS: Volosov, V. M.; Morgunov, B. I.

TITLE: On the computation of the vibrational regimes of certain non-Hamiltonian systems B

SOURCE: AN SSSR. Doklady, v. 161, no. 5, 1965, 1048-1050

TOPIC TAGS: vibration, nonlinear system, perturbation, periodic motion

ABSTRACT: The authors have considered a nonlinear system (in general non-Hamiltonian) described by

$$\dot{y} = G(y, p), \quad \dot{p} = F(y, p).$$

Let the solution of this system be purely periodic with y having one maximum F_1 and one minimum F_2 during each period. By perturbing this system, using a small parameter ε, the following set of equations is obtained

$$\begin{cases} \dot{y} = G(x, y, p) + \varepsilon g(x, y, p, \varepsilon), \\ \dot{p} = F(x, y, p) + \varepsilon f(x, y, p, \varepsilon), \\ \dot{x} = X(x, y, p, \varepsilon). \end{cases}$$

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L 50525-65
ACCESSION NR: AP5011522

The problem considered is the following: to find the approximate dependence of the amplitude curves of F_1 and F_2 and of x on the small parameter ε. The basic results are

$$\dot{F}_1 = \frac{\varepsilon}{T}\sum_{i=1,2}\int_{F_2}^{F_1}\frac{B_i(x, F_1, y)}{G(x, y, P_i)}dy, \quad \dot{x} = \frac{\varepsilon}{T}\sum_{i=1,2}\int_{F_2}^{F_1}\frac{X(x, y, P_i, 0)}{G(x, y, P_i)}dy,$$

$$T = \sum_{i=1,2}\int_{F_2}^{F_1}\frac{dy}{G(x, y, P_i)},$$

and the period of oscillation is given by

$$B_i = \left(\frac{\partial P_i}{\partial F_1}\right)^{-1}\left\{-\frac{\partial P_i}{\partial y}g(x, y, P_i, 0) + f(x, y, P_i, 0) - \frac{\partial P_i}{\partial x}X(x, y, P_i, 0)\right\}.$$

Orig. art. has: 11 equations.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: 21Oct64 ENCL: 00 SUB CODE: GP, MA

NO REF SOV: 007 OTHER: 000

mle
Card 2/2

VOLOSOV, V.M.; MORGUNOV, B.I.

Asymptotic calculations of certain rotary motions in the resonance case. Dokl. AN SSSR 161 no.6:1303-1305 Ap '65. (MIRA 18:5)

1. Moskovskiy gosudarstvennyy universitet. Submitted November 11, 1964.

L 07174-67 EWT(1)/EWP(c) IJP(c) GG

ACC NR: AP6032272 SOURCE CODE: UR/0020/66/170/002/0239/0241

AUTHOR: Volosov, V. M.; Morgunov, B. I.

20
B

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: Certain stability conditions connected with the study of resonance

SOURCE: AN SSSR. Doklady, v. 170, no. 2, 1966, 239-241

TOPIC TAGS: motion equation, motion stability, perturbation theory

ABSTRACT: The purpose of this work is to examine the system of equations describing fast and slow motion, i. e., a system of the type

$$\dot{x} = \varepsilon X(x, y, \varepsilon) = \varepsilon X_1(x, y) + \varepsilon^2 \ldots, \quad \dot{y} = Y(x, y, \varepsilon) = Y_0(x) + \varepsilon Y_1(x, y) + \varepsilon^2 \ldots,$$

where $\varepsilon > 0$ is a small parameter, $x = \{x_1, \ldots, x_n\}$ is a series of slowly changing variables, $y = \{y_1, \ldots, y_n\}$ is a series of fast changing variables,

$$X_j = \{X_j^{(1)}, \ldots, X_j^{(n)}\}, \; Y_k = \{Y_k^{(1)}, \ldots, Y_k^{(m)}\} \; (j = 1, 2, \ldots; \; k = 0, 1, 2, \ldots).$$

Assume at $\varepsilon = 0$ that the system has a point of rest (x_0, y_0). The general problem can be formulated in the following manner:

$$\dot{z} = A(\varepsilon) z + \Phi(\varepsilon, z, t), \quad \varepsilon > 0,$$

UDC: 517.9

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L 07174-67

ACC NR: AP6032272

0

where $A(\varepsilon)$ is the matrix:

$$A(\varepsilon) = \begin{pmatrix} \varepsilon a_{11} \ldots \varepsilon a_{1n} & \varepsilon b_{11} \ldots \varepsilon b_{1m} \\ \ldots\ldots\ldots & \ldots\ldots\ldots \\ \varepsilon a_{n1} \ldots \varepsilon a_{nn} & \varepsilon b_{n1} \ldots \varepsilon b_{nm} \\ c_{11} + \varepsilon d_{11} \ldots c_{1n} + \varepsilon d_{1n} & \varepsilon e_{11} \ldots \varepsilon e_{1m} \\ \ldots\ldots\ldots & \ldots\ldots\ldots \\ c_{m1} + \varepsilon d_{m1} \ldots c_{mn} + \varepsilon d_{mn} & \varepsilon e_{m1} \ldots \varepsilon e_{mm} \end{pmatrix},$$

where

$$a_{ik} = (\partial X_1^{(i)} / \partial x_k)_0, \quad b_{jl} = (\partial X_1^{(j)} / \partial y_l)_0, \quad c_{pq} = (\partial Y_0^{(p)} / \partial x_q)_0, \quad d_{rs} =$$
$$= \frac{1}{2} \sum_{i=1}^{n} \left(\frac{\partial^2 Y_0^{(r)}}{\partial x_i \partial x_s}\right)_0 \alpha_i + \left(\frac{\partial Y_1^{(r)}}{\partial x_s}\right)_0, \quad e_{\alpha\beta} = (\partial Y_1^{(\alpha)} / \partial y_\beta)_0$$

(the symbol $(\ldots)_0$ indicates that the corresponding term is taken at $x = 0$, $y = 0$) and

$$z = (z_1, \ldots, z_{n+m}), \ \Phi = (\Phi_1, \ldots, \Phi_{n+m}),$$

while the function Φ_i satisfies the conditions:

$$\Phi_i = O(\varepsilon^3 + \varepsilon^2 \|z\| + \varepsilon \|z\|^2), \quad i = 1, \ldots, n;$$
$$\Phi_j = O(\varepsilon^3 + \varepsilon^2 \|z\| + \|z\|^2), \quad j = 1, \ldots, m.$$

For the case of $n \geq m = 1$, and under the restrictions:

a) $S = \sum_{i=1}^{n} a_{ii} + e_{11} < 0$; b) $-k^2 = \sum_{i=1}^{n} b_{i1} c_{1i} < 0$;

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0

c) all roots of equation Det $B(\rho) = 0$ are different and have a negative real part;

d) $$\sum_{i_1<i_2<\ldots<i_{n-3}<n} \Delta_{i_1,\ldots,i_{n-3}} - k^2 S > 0,$$

is the diagonal minor of third order of determinant of matrix $B(0)$. At $n = 1$ conditions (c) and (d) can be discarded and at $n > 1$ condition (a) is not required. At sufficiently small ε, it can be proved that with requirements (a)-(d) all eigenvalues $\lambda(\varepsilon)$ of the matrix $A(\varepsilon)$ are given by Re $\lambda(\varepsilon) < -l\varepsilon$ (l = constant > 0). For conditions (a)-(d) the trivial solution of the general equation (at $m = 1$) is stable in the sense that for an arbitrary $T > 0$ and $\gamma_1 > 0$, one can denote such $\varepsilon_0 > 0$ and $\gamma_2 > 0$ that with all $0 \le \varepsilon \le \varepsilon_0$ and $t_0 \le t \le t_0 + T$ any solution of the general set of equations satisfying in the initial moment the condition

$$\|z(t_0)\| \leqslant \gamma_2$$

and fixed for all $t \in [t_0, t_0 + T]$ at all values of $t \in [t_0, t_0 + T]$ satisfies the inequality $\|z(t)\| \leqslant \gamma_1$. In general, for $T \sim 1/\sqrt{\varepsilon}$, $\gamma_1 \sim \sqrt{\varepsilon}$, $\gamma_2 \sim \varepsilon$: for an arbitrary $\delta > 0$, there exist such C_1, C_2, $\varepsilon_0 > 0$ that all $0 \le \varepsilon \le \varepsilon_0$ every solution of the equation

$$\dot{x} = A(\varepsilon)x + \Phi(\varepsilon, x, t)$$

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L 07174-67

ACC NR: AP6032272

satisfying the condition $\|z(t_0)\| \leqslant \delta\varepsilon,$ satisfies for $t \in [t_0, t_0 + C_1/\sqrt{\varepsilon}]$ the inequality $\|z(t)\| \leqslant C_2\sqrt{\varepsilon}.$

These equations can be used in the study of stationary resonance of oscillating and rotating systems. Presented by Academician N. N. Bogolyubov on 17 December 1965. Orig. art. has: 4 formulas.

SUB CODE: 12,20/ SUBM DATE: 02Dec65/ ORIG REF: 010

Card 4/4 egh

ANTONOV, M., nauchnyy sotrudnik; VOLOSOV, Yu., nauchnyy sotrudnik

Experience in mechanizing vegetable storage. Sov.torg. 33 no.3:42-46 Mr '60. (MIRA 13:6)

1. Nauchno-issledovatel'skiy institut torgovli i obshchestvennogo pitaniya.

(Kharkov--Vegetables--Storage)

ANTONOV, M., kand.tekhn.nauk; AVDEYEVA, L., nauchnyy sotrudnik; VOLOSOV, Yu., nauchnyy sotrudnik

Main trends in the construction of warehouses for fruits and vegetables. Sov. torg. 34 no.8:42-46 Ag '61. (MIRA 14:8)

1. Nauchno-issledovatel'skiy institut torgovli i obshchestvennogo pitaniya (for Avdeyeva, Volosov).

(Farm produce--Storage)

[illegible]

[illegible]

1. Kafedra khraneniya i pererabotki plodov i ovoshchey Moskovskoy ordena Lenina sel'skokhozyaystvennoy akademii im. K.A. Timiryazeva.

S/196/61/000/006/007/014
E073/E535

AUTHOR: Volosova, L.L.

TITLE: Process of mixture formation in gas burner equipment

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika, 1961, No.6, p.8, abstract 6G52. (Sb. 3-e Vses. soveshchaniye po teorii goreniya. T.2.; M., 1960, 238-249)

TEXT: The influence was investigated of a number of factors on the process of mixing of streams under conditions which approach those pertaining to work of industrial burners for burning natural gas in the furnaces of large power station boilers. In the experiments the gas was simulated by heated air. The character of mixing of the flows was determined from the temperature fields of the air stream on analogues of circular burners with central and peripheral input. The following relations were derived.
1. The degree of mixing of two flows depends strongly on the length of the mixing zone and increases rapidly with increasing length, both in unbounded space as well as in space bounded by an embrasure.
Card 1/2

Process of mixture formation in ... S/196/61/000/006/007/014
E073/E535

2. Twisting the air or the gas-air mixture flow by blade cascades brings about a deterioration in the process of mixing.
3. By varying the ratio of the flow speeds it is possible to obtain differing concentrations of the field across the section of the burners and thus it is possible to improve or impair the process of mixture formation.
Abstracted by V. Speysher.

[Abstractor's Note: Complete translation.]

Card 2/2

25418
S/137/61/000/006/007/092
A006/A101

11.7430

AUTHORS: Polyatskin, M.A., Volosova, L.L.

TITLE: The process of mixture formation in gas torch devices

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 6, 1961, 2, abstract 6B8 (V sb. "3-ye Vses. soveshchaniye po teorii goreniya, v. 2," Moscow, 1960, 238 - 249)

TEXT: Models of almost natural size were employed to study the mixture formation in various torches. The gas was modelled by air, heated to 100-120°C. The nature of mixing was determined by measuring temperature fields. The degree of mixing of two gas flows depends considerably on the length of the mixing zone and increases rapidly with its extension in both a restricted and unrestricted space. Whirling of the air or the gas-air mixture with blade paddles (lapatochnyy registr) in torches with central or peripheral gas feed does not increase the degree of mixing, but, on the contrary, impairs the mixing process. An increase of the whirling angle from 45 to 60° causes greater non-uniformity of the gas con-

Card 1/2

25418
S/137/61/000/006/007/092
A006/A101

The process of mixture formation in gas torch devices

centration field in the mixture. Whirling of a gas-air mixture improves slightly the mixing process as compared with the whirling of merely an air flow.

G. Glinkov

[Abstracter's note: Complete translation]

Card 2/2

VOLOSOVA, L.L., inzh.

Use of GSTL-3 and K_hTK_hG chromatographs in determining the CO content in flue gases. Teploenergetika 8 no.7:90-91 Jl '61. (MIRA 14:9)

(Furnaces) (Carbon dioxide)

BARANOVA, Z.K.; VOLOSOVA, R.I.; VORONKEVICH, S.D.; IL'INSKAYA, S.D.; SERGEYEV, Ye.M.

Change in Permian clays in the weathering crust from the point of view of engineering geology. Sov. geol. 2 no.6:114-121 Je '59. (MIRA 12:12)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova. (Clay)

DOL'NITSKIY, O.V. [Dol'nyts'kyi, O.V.]; VOLOSOVETS, P.S. [Volosovets', P.S.]

Microflora of a free skin graft in a plastic surgery of clear operative wounds and the effect of imanin on it. Mikrobiol.zhur. 26 no.4:46-49 '64. (MIRA 18:10)

1. Klinika khirurgii detskogo vozrasta Kiyevskogo meditsinskogo instituta i Institut mikrobiologii i virusologii AN UkrSSR.

VOLOSOVETS, P.S. [Volosovets', P.S.]

Effect of imanin and novoimanin on the regeneration of soft tissues in experiment. Mikrobiol. zhur. 27 no.5:74-77 '65. (MIRA 18:10)

1. Institut mikrobiologii i virusologii AN UkrSSR.

VOLOSOVETS, P.S. [Volosovets', P.S.]

Microflora of suppurating wounds and its quantitative changes following the treatment with imanin and novoimanin. Mikrobiol. zhur. 26 no.5:60-65 '64. (MIRA 18:7)

1. Institut mikrobiologii i virusologii AN UkrSSR.

VOLOSOVETS, P.S. [Volosovets', P.S.]

Effect of imanin and novoimanin on the phagocytic function of leucocytes. Mikrobiol.zhur. 26 no.6:45-48 '64.

(MIRA 18:8)

1. Institut mikrobiologii i virusologii AN UkrSSR.

RAKOVSKIY, V.Ye.; KOTKOVSKIY, A.P.; MAL', S.A.; EL'KIND, L.B.; DROZHALINA, N.D.; BARANCHIKOVA, M.I.; VOLOSOVICH, N.S.

Separation of phenols in a continuous distillation of peat tar. Trudy Inst. torfa AN BSSR 7:187-197 '59. (MIRA 14:1)
(Peat) (Distillation, Fractional) (Phenols)

RAKOVSKIY, V.Ye.; MAL', S.S.; VOLOSOVICH, N.S.

Formation and composition of water-soluble products of thermal decomposition of peat. Dokl. AN BSSR 5 no.12:558-560 D '61. (MIRA 15:1)

1. Institut torfa AN BSSR.
(Peat gasification) (Tar)

RAKOVSKIY, V.Ye.; KOTKOVSKIY, A.P.; MAL', S.S.; PASTUKHOV, G.M.; BARANCHIKOVA, M.I.; VOLOSOVICH, N.S.; DROZHALINA, N.D.; KASHIRINA, S.V.; MAKEYEVA, G.P.

Results of testing a pilot unit for processing tar water. Trudy Inst. torfa AN BSSR 7:240-257 '59. (MIRA 14:1)
(Peat gasification) (Industrial wastes)

VOLOSOVICH, V.K., aspirant

Electromagnetic braking of uncoupling operations. Sbor. trud. LIIZHT no.205:100-109 '63. (MIRA 18:1)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860720003-4"

BABCHENKO, N.N.; MOSKALENKO, N.P.; VOLOSOVICH, Ye.A., otv. red.; PASHCHINSKAYA, G.N., red.; YEFIMENKO, N.S., tekhn. red.

[Manual for workers of fish processing plants; collection of technological instructions and reference material on the primary processing of fish on board fishing ships of the Kaliningrad Economic Council] Spravochnik ryboobrabotchika; sbornik tekhnologicheskikh instruktsii, spravochnogo materiala po perichnoi obrabotke ryby na promyslovykh sudakh Kaliningradskogo sovnarkhoza. Kaliningrad, Kaliningradskoe knizhnoe izd-vo, 1962. 259 p. (MIRA 16:9)

(Fish processing plants)

VOLOSOVTSEV, V.D.

Causes of seedlessness of new grape varieties. Uzb. biol. zhur. 9 no. 6:45-49 '65 (MIRA 19:1)

1. Nauchno-issledovatel'skiy institut sadovodstva, vinogradarstva i vinodeliya imeni Shredera. Submitted July 5, 1965.

BLOKH, S.I., kand. sel'khoz. nauk; BORZOV, V.V., kand. sel'khoz. nauk; YURCHENKO, G.T.[IUrchenko, H.T.], inzh.-mekhanik; VOLOSOZHAR, V.A., kand. ekon. nauk; GERTSEN, Ye.I.[Hertsen, IE.I.], kand. sel'khoz. nauk; DANILENKO, I.A.[[redacted],I.A] red.; SMIRNOV, O.V.[Smyrnov, O.V.], red.; NEMCHENKO, I.Yu., [Niemchenko, I.IU.], tekhn. red.

[Advanced work practices on cattle farms] Peredovi metody raboty na fermakh velykoi rohatoi khudoby. 2., vypravlene i dop. vyd. Za red. I.A.Danylenka. Kyiv, Derzhsil'hospvydav URSR, 1963. 203 p. (MIRA 16:10)

1. Chlen-korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk imeni V.I.Lenina (for Danilenko).
(Dairying)

VOLOSTNOV, K. N.

AID - P-6

Subject : USSR/Engineering

Card : 1/1

Author : Volostnov, K. N.

Title : Experiment in increased efficiency of producing reinforced concrete pipes.

Periodical : Sbor. mat. o nov. tekh. v stroi. 2, 15-17, 1954.

Abstract : A more efficient method has been devised at the Berezovsk Plant for Building Constructions for the production of reinforced concrete pipes. These are made right at the place where concrete is mixed and poured in metal round forms with an inserted core, whereby the concrete is tamped with vibrators.

Institutions : The Berezovsk Plant for Building Constructions.

Submitted : No date.

VOLOSTNOV, K.N.

Efficient concreting of reinforced concrete pipe. Sbor.mat.o nov. tekh.v stroi. 16 no.2:15-17 '54. (MLRA 7:5)
(Pipe, Concrete)

VOLOSTNOV, M. B. , ed.

Dictionary of Russian geographical names. New York, Telberg, 1958.

821.
Reproduced from typewritten copy. Transliterated and translated from the Russian by T. Deruguine: Slovar' russkoy transkriptsii geograficheskikh nazvaniy.

VOLOSTNOVA, M.B.; PREOBRAZHENSKIY, M.A. [deceased]. Prinimali uchastiye: DRINEVICH, M.D.; KOROLEVA, M.K.; MIROPOL'SKIY, Ya.A.. YEROFEYEV, I.A., red.; FEDOTOVA, A.F., tekhn.red.; KOVALENKO, V.L., tekhn.red.

[Dictionary of Russian transcriptions of geographical names] Slovar' russkoi transkriptsii geograficheskikh nazvanii. Moskva, Gos.uchebno-pedagog.izd-vo M-va prosv. RSFSR. Pt.2. [Foreign geographical names] Geograficheskie nazvaniia na territorii zarubezhnykh stran. 1959. 167 p. (MIRA 12:5)

(Geography--Dictionaries)

VOLOSTNOVA. M.B.

Work of the Standing Committee on Problems of Place-name Spelling. Geod. i kart. no.7:74-78 Jl '64. (MIRA 17:12)

VOLOSTNOVA, M-B.

3(2),3(0)

AUTHOR: Pospelov, Ye. M. SOV/6-59-3-15/16

TITLE: Conference on Problems of the Transliteration of Geographic Names (Soveshchaniye po voprosam transkriptsii geograficheskikh nazvaniy)

PERIODICAL: Geodeziya i kartografiya, 1959, Nr 3, pp 76-78 (USSR)

ABSTRACT: The Conference convened by the Presidium of the AS USSR was held from January 28 to 31, 1958 at the Institut geografii AN SSSR (Geographic Institute of the AS USSR). It dealt with the present state of the transliteration of geographic names and with the ways of rapidly eliminating various deficiencies. The Conference was attended by 89 delegates from various organizations and scientific centers. Chairman was the Assistant Director of the Geographic Institute of the AS USSR, Professor E. M. Murzayev. The following lectures were heard: M. B. Volostnova and S. A. Tyurin "Activity in the Field of Transliteration at the Glavnoye upravleniye geodezii i kartografii (Central Administration of Geodesy and Cartography)". There is already a card file with about 1,000,000 cards. A permanent commission for transliteration problems was formed in 1950. M. Kh. Baranov analyzed the general state of transliteration

Card 1/2

Conference on Problems of the Transliteration of Geographic Names SOV/6-59-3-15/16

of geographic names and suggested that an All-Union Committee for the transliteration of geographic names be established. P. K. Makayuda illustrated the activity at the Gidrograficheskaya sluzhba VMF (Hydrographic Service of the Navy) with respect to the transliteration of geographic names. Ye. M. Pospelov reported on "The Situation of Transliteration Abroad". He pointed out that on the whole the foreign transliteration authorities cannot serve as an example, but some positive aspects can and must be made use of. E. M. Murzayev lectured on "Local Geographic Terms". In the course of discussions the necessity became evident of putting order into the problems of transliterating the names of foreign persons into the Russian language, and also into the problem of transliterating Russian and foreign names into the languages of the peoples of the USSR. The Conference decided to ask the Council of Ministers of the USSR that a central coordinating organ be created. It should be entitled to supervise the transliteration of geographic names and names of persons in the USSR and to exert control on the transliteration activity all over the USSR.

Card 2/2

VOLOSTNOVA, M.B.

VOLOSTNOVA, M.B.

Work of the translitetion section of the Central Scientific Research Institute of Geodesy, Aerial Survey, and Cartography. Sobr.st.po kart. no.2:37-41 '52. (MIRA 10:12)
(Cartography) (Russian language--Transliteration)

VOLOSTNOVA, M.B.; GALKIN, P.D., redaktor; PETROVA, M.D., tekhnicheskiy redaktor

[Dictionary of Russian transcription of geographical names]
Slovar' russkoi transkriptsii geograficheskikh nazvanii.
Moskva, Gos.uchebno-pedagog. izd-vo Ministerstva prosveshcheniia RSFSR. Pt. 1. [Geographical names of the territory of the U.S.S.R.]
Geograficheskie nazvaniia na territorii SSSR. 1955. 132 p.
(Names, Geographical) (MIRA 9:3)

VOLOSTNOVA, M.B.

Reference maps for transliterating geographic names. Geod. i kart. no.4:35-38 Ap '63. (MIRA 16:6)

(Names, Geographical)
(Transliteration)

VOLOSTNOVA, M.B.; DAL'KOVSKAYA, A.F.; DANILOVA, N.P.; KOPUSOVA, F.L.; LISITSKAYA, M.M.; LITVIN, I.P.; MIROPOL'SKIY, Ya.A.; NADZHAROVA, N.M.; SAVINA, V.I.; POLUEKTOVA, I.Ye.; GORYACHKIN, A.Z.

[Dictionary of the geographical names of foreign countries] Slovar' geograficheskikh nazvanii zarubezhnykh stran. Moskva, Nedra, 1965. 480 p. (MIRA 18:7)

1. Moscow. TSentral'nyy nauchno-issledovatel'skiy institut geodezii, aeros"emki i kartografii.

VOLOSTNYKH, A.V.

OSTROUKHOVA, N.P.; VOLOSTNYKH, A.V.; GRECHUSHKINA, A.G.; BAUMANOVSKAYA, A.P.; MESHCHERYAKOVA, Z.P.

Supplementary methods of laboratory diagnosis of bacillary dysentery. Zhur.mikrobiol.epid. i immun. 29 no.2:92-95 F '58. (MIRA 11:4)

1. Iz laboratorii dorozhnoy sanitarno-epidemiologicheskoy stantsii Tomskoy zheleznoy dorogi.
(DYSENTERY, BACILLARY, diagnosis,
laboratory supplementary methods (Rus)

SKIBA, Ivan Fomich, kand. tekhn. nauk; VOLOSTNYKH, D.V., inzh., retsenzent; SOROKIN, G.Ye., inzh., red.; KHITROV, P.A., tekhn. red.

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Albitization of feldspars in the argillization of rocks. Zap.Vses. min.ob-va 94 no.2:236-239 '65. (MIRA 18:5)

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X-ray diffraction analysis of petrographic thin sections. Zap. Vses.min.ob-va 90 no.3:310-312 '61. (MIRA 14:10)

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(X rays--Diffraction) (Petrology)

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(Clay)

(Kuzitsyn, IU.V.) (Aleksandrov, G.V.)

VASHKEVICH, K.P.; VOLOSTNYKH, V.N.

Overload capacity of high-speed wind wheels in case of regulation by turning blades and means of reducing this capacity. Prom. aerodin. no.16:12-27 '60. (MIRA 13:8)
(Windmills) (Aerodynamics)

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New blade profile for high-speed wind engines. Prom.aerodin. no.26:47-61 '64. (MIRA 18:1)

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Using a turbulizer in testing high-speed windmill models in wind tunnels. Prom.aerodin. no.26:122-125 '64.

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ACC NR: AP6025674 SOURCE CODE: UR/0413/66/000/013/0145/0145

INVENTOR: Volostnykh, V. N.

ORG: none

TITLE: A model of a propeller (vaned wheel) for experimentation in a wind tunnel. Class 62, No. 183600

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 13, 1966, 145

TOPIC TAGS: propeller blade, aircraft propeller, wind tunnel, aerodynamics

ABSTRACT: This Author Certificate presents a model of a propeller (vaned wheel) for experimentation in a wind tunnel. To obtain reliable aerodynamic characteristics for spinning propeller (vaned wheel) models at Re numbers smaller than those corresponding to the self-modeling regime of overflowing, the leading part of the blade profile carries openings of a small diameter. These openings serve as a turbolizer.

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VOLOSTNYKH, V.V., inzh.; ZUBRITSKIY, V.V., inzh.

Architectural appearance of a modern seagoing vessel. Sudostroenie 30 no.10:14-17 O '64. (MIRA 17:12)

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MEL'CHINSKIY, N.A., SUKHORUKOVA, L.N., ZEVELEVA, Z.A., KOROBOVA, F.M., KADISH, F.M.
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VOLOSUHOVA, N.P. LARINA, S.P. YEVDOKIMOVA, L.N.

Professor Aleksandr Vasil'evich Savel'ev; on his 60th birthday.
Vest.oto-rin. 20 no.6:126-127 N-D '58 (MIRA 11:12)
(SAVEL'EV, ALEKSANDR VASIL'EVICH, 1898-)

GUBANOV, A.; KISTAUBAYEV, K.; GROMADCHENKO, A. (stantsiya Shaktnaya); ~~VOLOSOVICH, A.,~~ brigadir; MASLOV, T.; TEL'TSOVA, A. (g.Ivanovo); SVISTUNOV, V.; KOVALEV, V.; KISELOV, V. (g.Priozersk, Leningradskoy oblasti); ANISIMOV, P.; KUTAYTSEV, Ye.

Editor's mail. Sov.profsoiuzy 16 no.17:44-50 S '60. (MIRA 13:8)

1. Predsedatel' mestnogo komiteta upravleniya sovkhoza imeni Stalina, Krasnodarskogo kraya (for Gubanov). 2. Zaveduyushchiy avtoklubom Yuzhno-Kazakhstanskogo obkoma profsoyuza rabochikh i sluzhashchikh sel'skogo khozyaystva i zagotovok, g.Nal'chik (for Kistaubayev). 3. Chlen komiteta profsoyuza gil'zonabivnogo tsekha fabriki "Dukat," Moskva (for Volosovich). 4. Predsedatel' mestkoma passazhirskogo avtotransportnogo transporta, g. Nal'chik (for Maslov). 5. Instruktor kul'turno-massovogo otdela Leningradskogo oblsovprofa (for Svistunov). 6. Redaktor gazety "Azovstal'stroyevets," g. Zhdanov (for Kovalev). 7. Nachal'nik otdela kadrov Ul'yanovskogo sel'skokhozyaystvennogo instituta (for Kutaytsev). 8. Starshiy instruktor Tyumenskogo oblastnogo soveta profsoyuzov (for Anisimov).
(Trade unions)

VOLOSYAN, L.Yan, inzh.

High strength keramzit for reinforced concrete shipbuilding.
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π-type filter in a radio receiver. Radio no.9:53 S '61. (MIRA 14:10)

(Radio filters)

GULYAYEV, G.; GAUKHMAN, R., master radiosporta (Moskva); GONCHARSKIY, V.; master radiosporta (L'vov); BUNIMOVICH, S., master radiosporta, (Stalino); SELEVKO, Yu., master radiosporta; IVANOVA, Ye., master radiosporta (Chelyabinsk); LABUTIN, L., master radiosporta (Moskva); SHEYKO, V., master radiosporta; GESELEV, B., master, radiosporta (Khar'kov); Shtraus, V., pervorazryadnik (Buguruslan); VOLOSYAN, M., pervorazryadnik (Simferopol').

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1. Predsedatel' sportivnoy komissii Federatsii radiosporta SSSR (for Gulyayev).

(Amateur radio stations)

VOLOSYAN, M. (UB5CD) (Simferopol')

Filter for the production of a good tone. Radio no.6:26 Je '60. (MIRA 13:7)

(Electric filters)

VOLOSYAN, P.I., brigadir puti

Wire tying of ties should be done in the plant. Put' i put. khoz. 7 no.10:42 '63. (MIRA 16:12)

1. Stantsiya Sivaya Maska, Severnoy dorogi.